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United States Patent

Cha

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[54] PROGRAM CIRCUIT

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[58] Field of Search 365/189.07, 201, 365/185.22

[56]

References Cited

U.S. PATENT DOCUMENTS

4,811,294 3/1989 Kobayashi et al. 365/189.07
5,299,162 3/1994 Kim et al. 365/201
5,629,890 5/1997 Engb 365/189.07

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[57]

ABSTRACT

The program circuit according to the present invention can apply a program voltage to the only memory cells which are not programmed during a re-programming operation, thus, the present invention can be prevent a lowering of reliability of the memory cell due to a continued supply of a program bias voltage.

4 Claims, 1 Drawing Sheet

